

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently Amended) A management system for a data communication network, the management system comprising:
 - a) a plurality of application objects, each ~~corresponding to~~ application object having a one to one correspondence with an application available on a data communication network and each application object specifying a network connection point for the corresponding application;
 - b) a plurality of subscriber objects each corresponding to a subscriber having a connection to the data communication network, each subscriber object specifying a network connection point for the corresponding subscriber;
 - c) a user interface permitting a user to create a subscription object associating one of the subscriber objects and one of the application objects; and,
 - d) a network manager for creating, in the data communication network, at least one communication channel for each subscription object, the communication channel connecting the network connection point for the subscriber of the subscription object and the network connection point for the application of the subscription object.
2. (Original) The management system of claim 1 wherein the application objects each contain information specifying a quality of service level for the communication channel and the network manager creates the communication channel having the specified quality of service level.

3. (Original) The management system of claim 2 wherein the quality of service level includes a peak bit rate for communications over the communication channel in a direction from the subscriber to the application and a different peak bit rate for communications over the communication channel in a direction from the application to the subscriber.
4. (Original) The management system of claim 1 wherein each subscription has a status of enabled or disabled by an operator and wherein the network manager causes the data communication network to disconnect the communication channel for a subscription whenever the status of the subscription is disabled.
5. (Original) The management system of claim 4 comprising a service subscription agent, the service subscription agent comprising a user interface accessible to a subscriber, the user interface providing a control whereby the subscriber may change the status of any of one or more subscriptions of that subscriber from enabled to disabled or from disabled to enabled.
6. (Original) The management system of claim 1 comprising a statistics collector, the statistics collector collecting statistics regarding communication channels of the data communications network, the management system comprising means for selecting and aggregating statistics for all of one or more communications channels used in the provision of a service of a subscription over a selected period.
7. (Original) The management system of claim 1 wherein the data communications network comprises an ATM network and the communication channels are virtual channel connections.

8. (Original) The management system of claim 1 wherein no virtual channel connection is associated more than one subscription.
9. (Original) The management system of claim 5 wherein the network comprises a name server and the service selection agent comprises a plurality of service selection servers and a plurality of user software capable of connecting to the service selection servers, wherein the user software comprises a timer connected to measure a response time taken for a connected service selection server to respond to a command and the user software is adapted to request from the name server a connection to a different service selection server if the measured response time exceeds a threshold time.
10. (Currently Amended) A method for managing the provision of services to users of a data communications network, the method comprising, in a computer system:
 - a) storing in a database accessible to the computer system subscriber information identifying a plurality of subscribers and application information identifying one or more applications available to the subscriber, the application information comprising one or more application objects, each application object having a one to one correspondence with a particular one of the one or more applications and each application object specifying a network connection point for the particular application;
 - b) receiving user input identifying ~~one~~ a selected subscriber and ~~one~~ a selected application to be associated as a subscription;
 - c) retrieving, from the database, a selected subscriber network connection point from the subscriber information for the ~~one~~ selected subscriber and ~~an~~ a

- selected application network connection point from the application ~~information for object corresponding to the one selected~~ application; and,
- d) creating a communications channel in the data communications network extending between the selected subscriber network connection point and the selected application network connection point.
11. (Original) The method of claim 10 wherein the data communications network comprises an ATM network and the communications channel comprises a virtual circuit connection.
12. (Currently Amended) The method of claim 11 wherein the application ~~information~~ object corresponding to the selected application comprises information specifying a quality of service level for the virtual circuit connection and creating the communication channel comprises creating a virtual circuit connection having the specified quality of service level.
13. (Currently Amended) The method of claim 12 wherein the quality of service level includes a peak bit rate for communications over the communication channel in a direction from the selected subscriber to the selected application and a different peak bit rate for communications over the communication channel in a direction from the selected application to the selected subscriber.
14. (Currently Amended) The method of claim 11 comprising disconnecting the communication channel for a subscription whenever:
- (a) the ~~corresponding~~ selected subscriber is not enabled;
 - (b) the subscription is not enabled;

- (c) the ~~corresponding~~ selected application is not enabled;
 - (d) a network access for the selected subscriber is not enabled and operational; or
 - (e) a network access for the selected application ~~provider~~ is not enabled.
15. (Original) The method of claim 10 comprising providing a service selection agent comprising a user interface accessible to a subscriber, the user interface providing a control whereby the subscriber may change the status of one or more subscriptions of that subscriber from enabled to disabled or from disabled to enabled.
16. (Original) The method of claim 15 wherein the service selection agent comprises a plurality of service selection servers and the method includes connecting user software to a service selection server; measuring a response time of the service selection server; and, connecting the user software to a different one of the service selection servers if the measured response time exceeds a threshold time.
17. (Original) The method of claim 10 comprising collecting statistics regarding communication channels of the data communications network and periodically selecting and aggregating statistics for all of one or more communications channels associated with each subscription.
18. (Original) The method of claim 17 wherein the data communications network comprises an ATM network and the communication channels are virtual channel connections.

19. (Original) A method for balancing loads between a plurality of web servers, the method comprising:
- a) providing a plurality of web servers, a name server, and a plurality of clients;
 - b) connecting each of the clients to one of the web servers;
 - c) at each client, measuring a response time of the connected web server; and,
 - d) requesting from the name server a connection to a different one of the web servers if the response time exceeds a threshold time.